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10/054,751	10/22/2001	Michael Soemo	2001P20319US	5865

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Siemens Corporation  
Intellectual Property Department  
186 Wood Avenue South  
Iselin, NJ 08830

EXAMINER

PUNIT, PRAKASH C

ART UNIT	PAPER NUMBER
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2175

DATE MAILED: 06/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/054,751

Applicant(s)

SOEMO ET AL.

Examiner

Prakash C Punit

Art Unit

2175

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

DIANE D. MIRRAHI  
PRIMARY PATENT EXAMINER  
TECHNOLOGY CENTER 2100

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 23-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Hickman et al. (U.S. Patent No. 6,523,036).

As to claim 23, Hickman et al. discloses a method for creating a database, said method comprising the steps of:

storing a set of static data elements in a static memory device (see column 7, lines 12-27);

and,

storing a set of dynamic data (i.e. I-data) elements in a dynamic memory device (i.e. netstore) (see column 6, lines 41-49), wherein said database (20) comprises said static data elements and said dynamic data (i.e. I-data) elements (see column 11, lines 40-65; also see column 6, lines 41-49).

As to claim 24, Hickman et al. discloses further comprising the step of:

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creating a catalog for said database (see column 4, lines 18-26; also see column 5, lines 44-55; where “catalog” is read on “metadata”), said catalog (i.e. metadata) specifying a plurality of data fields and said catalog (i.e. metadata) further specifying that at least some of said data fields are stored in said static memory device and that at least some of said data fields are stored in said dynamic memory device (i.e. netstore) (see column 11, lines 40-65; also see column 6, lines 41-49).

As to claims 25 and 30, Hickman et al. discloses a method for editing a data element stored in a static memory device comprising a plurality of storage units, said method comprising the steps of:

copying a content of one of said storage units to a dynamic memory device (i.e. netstore), wherein said content comprises said data element (see column 9, lines 1-26; where “copying” is read on “read or write or update”);

editing (i.e. modifying/updating) said data element while said data element is stored in said dynamic memory;

erasing said one of said storage units (see column 9, lines 1-26; where “erasing” is read on “deleting”); and,

writing said content, including said data element that has been edited, into said one of said storage units (see column 11, lines 7-18).

As to claims 26 and 32, Hickman et al. discloses a method performed by a database generation tool for creating a compressed database, said method comprising the steps of:

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receiving a data input file, said data input file defining a first set of data fields to be included in said database and said data input file including a set of data elements to be included in said database (see column 26, line 66 through column 27, line 5);

identifying a second set of data fields in said data input file that are designated to contain a Boolean element, said second set of data fields being a subset of said first set of data fields (see column 29, lines 15-21; where “second set of data fields” is read on “adding new base”);

defining one or more new data fields for collectively storing said Boolean elements (see column 19, lines 56-65 ; where “ Boolean element” is read on “types specified in the schema”);

modifying said first set of data fields to eliminate said second set of data fields (see column 22, lines 43-48; where “eliminating” is read on “deleting”); and,

generating a catalog that defines an arrangement of the first set of data fields (see column 5, lines 44-55; where “catalog” is read on “metadata”), wherein said arrangement includes said one or more new data fields for collectively storing said Boolean elements (see column 19, lines 56-65 ; where “ Boolean element” is read on “types specified in the schema”).

As to claim 27, Hickman et al. discloses a computer program product comprising a computer readable code stored on a computer readable medium, that when executed, causes a computer to:

read a catalog (i.e. metadata) to determine where a set of static data shall be stored in a static memory device (see column 5, lines 44-55; where “catalog” is read on “metadata”);

store said static data in said static memory device according to said catalog (see column 3, lines 17-25);

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read said catalog to determine where a set of dynamic data (i.e. I-data) shall be stored in a dynamic memory device (i.e. netstore) (see column 3, lines 47-62); and

store said dynamic data (i.e. I-data) in said dynamic memory device (i.e. netstore) according to said catalog (see column 1, lines 29-32; also see column 2, lines 42-48).

As to claim 28, Hickman et al. discloses a method, said computer program product further causing said computer to:

store said static data as a static data file in said static memory device (see column 3, lines 17-25); and

store said dynamic data (i.e. I-data) as a dynamic data (i.e. I-data) file in said dynamic memory device (i.e. netstore) (see column 1, lines 29-32; also see column 2, lines 42-48).

As to claim 29, Hickman et al. as modified discloses a system, further comprising a file system adapted to access said dynamic data (i.e. I-data) contained in said dynamic data (i.e. I-data) file using one or more memory pointers (see Table 12; where “pointers” is read on “IP addresses”).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-22 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hickman et al. (U.S. Patent No. 6,523,036) in view of Berkowitz et al. (U.S. Patent No. 6,457,021).

As to claim 1, Hickman et al. discloses a data storage system comprising:

a database (20) partitioned into a first section and a second section (see column 8, lines 28-32), the first section comprising static data and being stored in a static memory device (see column 7, lines 11-27), the second section comprising dynamic data (i.e. I-data) and being stored in a dynamic memory device (i.e. netstore) (see column 6, lines 41-49); and,

Hickman et al. does not teach a database manager for managing said database.

Berkowitz et al. teaches a database manager for managing said database (see Fig. 2, element 201; also see column 5, lines 24-30).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hickman et al. to include a database manager for managing said database.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hickman et al. by the teachings of Berkowitz et al., because by including a database manager for managing said database, the database manager controls reads and writes on the database records and guarantees consistency of the data resulting in overall economy of the system (see Berkowitz et al., column 1, lines 23-28).

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As to claims 2 and 13, Hickman et al. as modified does not teach a system wherein said database manager comprises software and wherein said database manager is stored in said static memory device.

Berkowitz et al. teaches a system wherein said database manager comprises software (see column 2, lines 1-9) and wherein said database manager is stored in said static memory device (see Fig. 2; also see column 5, lines 24-30).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hickman et al. to include a database manager for managing said database.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hickman et al. by the teachings of Berkowitz et al., because by including a database manager for managing said database, the database manager controls reads and writes on the database records and guarantees consistency of the data resulting in overall economy of the system (see Berkowitz et al., column 1, lines 23-28).

As to claim 3, Hickman et al. as modified discloses a system, wherein said static memory device comprises a set of units (i.e. tables), and further wherein said database manager copies a set of data elements stored in one of said units (i.e. tables) into said dynamic memory when one or more of said data elements is to be modified (see column 6, lines 50-57; where “modified” is read on “updated”).



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As to claims 4 and 17, Hickman et al. as modified discloses a system, wherein said dynamic memory comprises a cache (i.e. buffer) and wherein said set of data elements are copied from said static memory into said cache (see column 7, lines 15-25).

As to claims 5 and 18, Hickman et al. as modified discloses a system, wherein a plurality of applications (i.e. APP<sub>1</sub>, APP<sub>2</sub>...) has access to said database (see Fig. 2, element 32) and further wherein said cache is used to support modifications to the database made by said plurality of applications (see column 9, lines 1-13).

As to claims 6 and 19, Hickman et al. as modified discloses a system, wherein comprises a catalog that identifies a set of data fields in said database (20) and further wherein said catalog specifies that at least some of said data fields contain static data elements and specifies that at least some of said data fields contain dynamic data (i.e. I-data) elements (see column 6, lines 41-67; where “dynamic data (i.e. I-data) elements” is read on “I-data”).

Hickman et al. as modified does not teach the database manager.

Berkowitz et al. teaches a database manager (see Fig. 2, element 201; also see column 5, lines 24-30).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hickman et al. to include a database manager.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hickman et al. by the teachings of Berkowitz et al., because by including a database manager for managing said database, the database manager

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controls reads and writes on the database records and guarantees consistency of the data resulting in overall economy of the system (see Berkowitz et al., column 1, lines 23-28).

As to claims 7 and 20, Hickman et al. as modified discloses a system, further including a database generation tool (i.e. application program) adapted to generate a database file containing a catalog (i.e. database object) that defines a set of data fields (i.e. columns) for storing a set of data elements, said set of data fields including one or more data fields (i.e. columns) for collectively storing a set of Boolean data elements (see column 3, lines 46-62; also see column 4, lines 37-42; Any type of information can be stored in the columns as long as that particular data type is defined for that column during object creation).

As to claims 8 and 14, Hickman et al. as modified discloses a system, wherein said second section (i.e. second partition) comprises a dynamic data (i.e. I-data) file that occupies a contiguous portion of said dynamic memory (see column 6, lines 13-18; also see column 14, lines 51-65).

As to claims 9 and 15, Hickman et al. as modified discloses a system, further comprising a file system adapted to access said dynamic data (i.e. I-data) contained in said dynamic data (i.e. I-data) file using one or more memory pointers (see Table 12; where “pointers” is read on “IP addresses”).

As to claims 10 and 16, Hickman et al. as modified does not teach wherein said file system is integrated with said database manager.

Berkowitz et al. teaches wherein said file system is integrated with said database manager (see column 17, lines 53-65; Since database manager is stored in the shared memory as well, it could be said that the addresses and database manager are integrated).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hickman et al. to include the file system that is integrated with said database manager.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hickman et al. by the teachings of Berkowitz et al., because by including a database manager for managing said database, the database manager controls reads and writes on the database records and guarantees consistency of the data resulting in overall economy of the system (see Berkowitz et al., column 1, lines 23-28).

As to claim 11, Hickman et al. as modified discloses a system, wherein said second section comprises a third section and a fourth section, said third section comprising non-persistent dynamic data, said fourth section comprising persistent dynamic data, said third and fourth sections being stored in a non volatile memory device (see column 11, lines 40-65; where "section" is read on "partitions").

As to claim 12, Hickman et al. discloses a control system having a data storage system for storing data related to said control system, the control system comprising:

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a communication network (see Fig. 14);

an application node coupled to said communication network, the application node (see Fig. 2) having a static memory device and a dynamic memory device (i.e. netstore) (see column 8, lines 20-38);

a database partitioned into a first section and a second section (see column 8, lines 28-32), said first section comprising static data and being stored in the static memory device, said second section comprising dynamic data (i.e. I-data) and being stored in the dynamic memory device (i.e. netstore) (see column 6, lines 41-49; also see column 7, lines 12-27); and disposed in said application node (32) for managing said database (see Fig. 2; also see column 8, lines 20-38).

Hickman et al. does not teach the database manager.

Berkowitz et al. teaches a database manager (see Fig. 2, element 201; also see column 5, lines 24-30).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hickman et al. to include a database manager.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hickman et al. by the teachings of Berkowitz et al., because by including a database manager for managing said database, the database manager controls reads and writes on the database records and guarantees consistency of the data resulting in overall economy of the system (see Berkowitz et al., column 1, lines 23-28).

As to claim 21, Hickman et al. as modified discloses a system, further comprising a workstation coupled to said communication network, said workstation being adapted to execute a database interface software program, wherein said database interface software program enables user-access to said database (see Fig. 14).

As to claims 22 and 31, Hickman et al. as modified discloses a system, wherein said communications network comprises a first communications network, and wherein said first communications network is connected to a external second communications network wherein said database, and said memory device may be remotely communicated with over said external second communications network (see column 29, line 53 through column 30, line22).

Hickman et al. does not teach the database manager.

Berkowitz et al. teaches a database manager (see Fig. 2, element 201; also see column 5, lines 24-30).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hickman et al. to include a database manager.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hickman et al. by the teachings of Berkowitz et al., because by including a database manager for managing said database, the database manager controls reads and writes on the database records and guarantees consistency of the data resulting in overall economy of the system (see Berkowitz et al., column 1, lines 23-28).

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*Conclusion*

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of art with respect to automotive network in general:

U.S. Patent No. 6,523,036 to Hickman et al. – teaches dynamic data system

U.S. Patent No. 6,457,021 to Berkowitz et al. – teaches database manager.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prakash Punit whose telephone number is (703) 305-5914. The examiner can normally be reached on Mondays – Fridays from 9:45 am to 6:15 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici, can be reached on (703) 305-3830. The fax numbers of the group is (703) 746-7239.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.

Prakash Punit  
Patent Examiner  
Au 2175

  
DIANE D. MIZRAHI  
PRIMARY PATENT EXAMINER  
TECHNOLOGY CENTER 2100

June 16, 2003